

# EFFICIENT & ECONOMICAL ELECTRIC HOT WATER HOME HEATING



## CAREFREE™

Burnham's Carefree™ line of boilers offers 100% fuel efficient electric heat in a smartly styled wall-hung unit. The Carefree boiler combines the convenience of electric heat with the comfort that only a hydronic system can provide.

The Carefree comes equipped with brand name quality controls, and all electric components are UL listed. The one-piece cast iron construction provides dependable, long-lasting heat, and the heat exchanger is covered by Burnham's Lifetime True-Blue Limited Warranty. A large 3.5 gallon water capacity allows maximum heat extraction, and the heating elements are designed for years of trouble-free operation. The simple, solid construction of this electric boiler makes it truly "carefree".

Conveniently available in three capacities ranging from 41,000 through 68,000 BTU/HR, the Carefree boiler can meet your electric hydronic heating needs.



# SPECIFICATIONS



## CAREFREE RATINGS



Boiler Model	DOE Heating Capacity MBH			AMPS (240V)	Water Flow Rate — GPM Based on 20°F Temp. Rise and Boiler Capacity at:			Approx. Shipping Weight Lbs..	AFUE%
	240V	220V	208V		240V	220V	208V		
E-412	41	35	31	50	4.1	3.5	3.1	133	100
E-416	55	46	41	70	5.5	4.6	4.2	133	100
E-420	68	58	52	85	6.8	5.8	5.2	133	100

Note: DOE Heating Capacity ratings are shown. Where the boiler and piping are in the heated space, the boiler may be selected on the basis of the Heating Capacity. Where a piping loss and/or pick up loss will exist, add this loss to the building loss to determine the total heating requirement. Where a piping loss only will exist but cannot be calculated, multiply the calculated building loss by a 1.15 factor to determine the total heating requirement. Design Working Pressure: 30 PSIG, Water Only.

## Recommended Power Supply to Boiler

Boiler Model	KW	AMPS	Volts Phase	No./Size of Elements	Minimum* Wire Size	Maximum Fuse Size (AMPS)	Approx. Weight Full Lbs.	Water Content Gals.
E-412	12	50	240/1	4-3KW	6	60	155	3-1/2
E-416	16	70	240/1	2-3KW, 2-5KW	4	80	155	3-1/2
E-420	20	85	240/1	4-5KW	2	90	155	3-1/2

\* For runs in excess of 50 ft. consult local and national electrical codes.

## Clearance Requirements

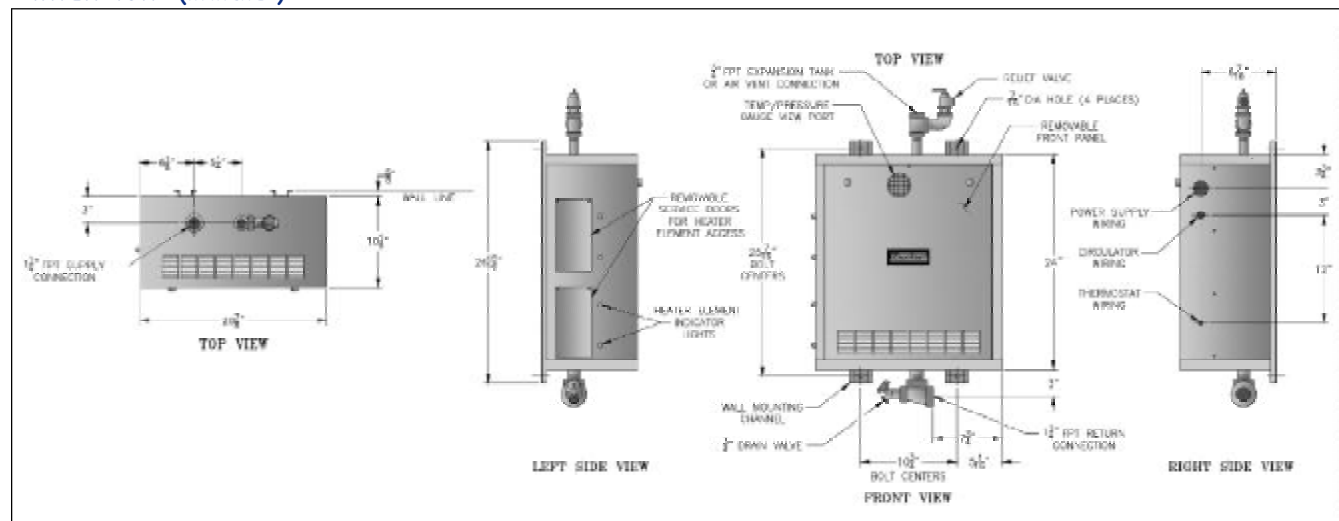
	For Service Accessibility (in inches)	Approved for Closet and Alcove Installation with Minimum Clearance to Combustible Material* (in inches)
Left Side	18	18
Right Side	6	0
Top	9	9
Bottom	9	15
Rear	0	0
Front	For Door Removal	2" Closet 18" Alcove

\* Closet installation requires two ventilation openings, one located at top and one at bottom, each opening to have 25 sq. in. net free area.

## Standard Equipment

Deluxe blue jacket  
Wall mounting brackets  
Heating element sequencers  
Neon indicator lights  
Circulator delay control  
Circulator switch control  
circuit fuse  
Transformer - 120/24V-40VA  
Field wiring terminal block  
Thermostat terminal block  
Dual high limit control  
Pressure temperature gauge  
Safety relief valve  
Boiler drain valve  
Internal wiring  
Heating element relays

## Dimensions (in inches)



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